Amendments to the Claims

Please amend Claims 1 and 10. Please add new Claims 14-17. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (currently amended) A microscope slide stainer, comprising:

a moving platform adapted to support a plurality of microscope slides bearing biologic samples;

a plurality of heating elements, each heating at least one slide, the heating elements heating the slides to different temperatures;

electronic circuitry that supplies variable amounts of electrical power to said heating elements, said electronic circuitry being mounted on the moving platform; and

a user interface ~~in communication with said electronic circuitry and~~ through which desired temperatures for microscope slides are specified, said user interface being mounted off of the moving platform and communicating data to said electronic circuitry on the moving platform to cause said electronic circuitry on the moving platform to supply electrical power to said heating elements to heat said heating elements to said desired temperatures.

2. (original) A microscope slide stainer as claimed in claim 1, wherein said electronic circuitry on the moving platform and the user interface, not mounted on said moving platform, communicate electrically via a group of conductors.

3. (original) A microscope slide stainer as claimed in claim 2, wherein the number of conductors in the group of conductors is fewer than the number of heating elements.

4. (original) A microscope slide stainer as claimed in claim 1, wherein said electronic circuitry comprises a shift register, which receives control data from the user interface.

5. (original) A microscope slide stainer as claimed in claim 1, further comprising a temperature sensor for providing temperature feedback information .

6. (original) A microscope slide stainer as claimed in claim 1 wherein each heating element heats a single slide.

7. (original) A microscope slide stainer as claimed in claim 1 wherein each heating element comprises a flat slide support surface.

8. (original) A microscope slide stainer, comprising:

a plurality of microscope slides bearing biologic samples, positioned on a moving platform;

a plurality of heating elements on the moving platform, each element heating at least one slide, and at least one being heated to a temperature distinct from the temperatures of other heating elements;

electronic circuitry that regulates electrical power to said heating elements, said electronic circuitry being mounted on the moving platform;

a user interface through which desired temperatures for microscope slides is specified, said user interface being mounted off of the moving platform and said user interface comprising electronic circuitry which communicates data to the electronic circuitry on the moving platform, causing said electronic circuitry on the moving platform to supply electrical power to said heating elements to attain said desired temperature ; and,

a group of conductors for providing an electrical connection between said electronic circuitry on the moving platform and the user interface, the number of conductors in said group of conductors being less than the number of heater elements.

9. (original) A microscope slide stainer as claimed in claim 8, further comprising a temperature sensing means for providing temperature feedback data.

10. (currently amended) An automated device for preparation or incubation of biologic samples, comprising:

a moving platform adapted to support a plurality of biologic samples;

a plurality of heaters positioned on the moving platform so as to provide heat to one or more samples;

a ~~computer~~ processor that specifies the desired temperatures for the heaters, said ~~computer~~ processor being mounted off of the moving platform;

independent heating control capable of heating the heaters to different temperatures, said heating control comprising:

electronic circuitry mounted on the moving platform supplying electrical power to at least one heater; and

a data communication link between the ~~computer~~ processor and said electronic circuitry mounted on the moving platform, through which said electronic circuitry receives data from the ~~computer~~ processor to cause said electronic circuitry to provide an appropriate amount of electrical power to each of said heaters to heat the heaters to the ~~computer~~ processor-specified temperatures.

11. (original) An automated device, as claimed in claim 10, wherein the biologic samples are mounted on a microscope glass slide.

12. (original) An automated device, as claimed in claim 10, further comprising a temperature sensor that provides temperature feedback information.

13. (original) A microscope slide stainer, comprising:

a moving platform adapted to support a plurality of microscope slides bearing biological samples;

a plurality of heating means, each for heating at least one slide, each of the heating means having the capability of heating to different temperatures;

electronic circuitry means for regulating electric power to the heating means, said electronic circuitry means being mounted on the moving platform; and

user interface means in communication with the electronic circuitry means for specifying a desired temperature for each microscope slide, said user interface means being mounted off of the moving platform and communicating data to the electronic circuitry on the moving platform to regulate the electrical power to the heating means.

14. (new) A microscope slide stainer, comprising:

a staining protocol program comprising instructions for applying reagents and heat to a plurality of microscope slides bearing biological tissues;

a plurality of slide heaters, each heater being comprised of a heating element and having a surface for contacting at least one microscope slide so as to transfer heat to the at least one microscope slide;

a temperature control system comprising a processor that issues commands to cause the slide heaters to heat at the times specified in the staining protocol, the temperature control system being capable of heating one heater to a different temperature than another;

at least one reagent dispenser that can dispense a liquid reagent onto a microscope slide;

a movable carriage that causes the reagent dispenser to be aligned over a desired microscope slide so that reagent dispensed out of the reagent dispenser drops onto an underlying microscope slide; and

a movable carriage control system comprising a processor that issues commands to cause relative motion of the reagent dispenser and microscope slide to each other so that the reagent dispenser is aligned over a desired microscope slide, as specified in the staining protocol.

15. (new) A microscope slide stainer as claimed in claim 14 wherein the movable carriage moves the microscope slides and reagents are dispensed from a reagent dispenser at a fixed location.

16. (new) A microscope slide stainer as claimed in claim 14 wherein each of the heaters contacts only one microscope slide.

17. (new) A microscope slide stainer as claimed in claim 14 further comprising a plurality of temperature sensors, each sensor positioned in association with a heater.